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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,365	06/23/2005	Hiroshi Morikawa	2204-051771	3495

28289 7590 11/27/2006

THE WEBB LAW FIRM, P.C.  
700 KOPPERS BUILDING  
436 SEVENTH AVENUE  
PITTSBURGH, PA 15219

EXAMINER
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YEE, DEBORAH

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/540,365

**Applicant(s)**

MORIKAWA ET AL.

**Examiner**

Deborah Yee

**Art Unit**

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8-14-06

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4 to 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gressin et al (US Patent 4,726,853).

3. Gressin ferritic stainless steel examples 497, 377, 427, 445, 446 and 428 in Tables 2 and 3 of column 10 meet the claimed composition. Moreover, claim 5 in columns 13-14 teaches processing steel by cold rolling; hence work hardening is achieved.

4. Even though Al<sub>2</sub>O<sub>3</sub> inclusions of 10 microns or less in size and present at less than 0.06% as recited by claims 4 and 6 are not taught by prior art, such would be suggested by Gressin since compositional limitations are met, and also in view of Gressin on lines 15-17 in column 3 which teaches that very little Al in the form of alumina (Al<sub>2</sub>O<sub>3</sub>) in steel alloy is present.

5. Even though yield strength of 500-900N/mm<sup>2</sup> as recited by claims 5 and 7 are not disclosed, such property would be expected since composition and inclusion limitations are closely met and in absence of proof to the contrary.

6. Claims 4 to 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over , Japanese patent 2000-1757 .

7. JP'757 ferritic stainless steel examples A-1 to A-6 in the Table on page 8 meet the composition recited in claims 4 and 6.

8. Even though Al<sub>2</sub>O<sub>3</sub> inclusions of 10 microns or less in size and present at less than 0.06% as recited by claims 4 and 6 are not taught by prior art, such would be expected by JP'757. See JP'757 figure 2 on page 9 wherein Al<sub>2</sub>O<sub>3</sub> wt% can be close to zero.

9. Even though work hardening is not taught, such process step would be obvious for one skilled in the art to apply since JP'757 English abstract teaches ferritic steel is excellent in workability. Although YS values as recited by claims 5 and 7 are not taught, such would be expected since composition and inclusion limitations are closely met, and in absence of proof to the contrary.

10. Claims 4 to 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 200-149322.

11. JP'322 ferritic stainless steel examples 1 to 5 in tables 1 and 2 on page 5 meet the claimed composition and Al<sub>2</sub>O<sub>3</sub> inclusion wt% range of less than 0.06%. Even though inclusion size of less than 10 microns as recited by claims 4 and 6 is not disclosed, such would be expected since composition and inclusion limitations are met, and in absence of proof to the contrary.

12. Even though work hardening is not taught, such would be obvious for one skilled in the art to apply since JP'322 English abstract teaches ferritic steel is excellent in

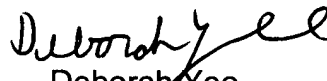
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ridging resistance ( indicates excellent workability) . Although Yield strength values as recited by claims 5 and 7 are not taught, such would be expected since compositional limitations are met, and in absence of proof to the contrary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-27211253. The examiner can normally be reached on monday-friday 6:00AM-2:30 PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Deborah Yee  
Primary Examiner  
Art Unit 1742

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